Integrating the Monorail

Appendix B draft

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PLANNING
BACKGROUND
REPORT

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City of Seattle

Appendix B:

Methodology of Seattle's Zoning and Development Capacity Analyses

Overview

Seattle's zoning can be divided into 5 main categories: Single Family zones, Multifamily zones, Commercial zones, Downtown zones and Industrial zones. Within these categories are 36 zones. Many of these zones have a number of different height limits that are permitted in different locations, depending on local conditions and goals. In addition, a number of overlays amend zoning regulations in specific locations to respond to local conditions. These overlays range from shoreline zones which provide a large amount of direction in terms of both permitted uses and development standards to an overlay height district which only impacts permitted heights under a flight path. There are currently over four hundred combinations of zones and overlays mapped in Seattle.

Many of these areas are not expected to see redevelopment, or because of the specifics of the zone or its location, a formula is not an appropriate tool for identifying development capacity. For example, Major Institution Overlays are created in response to Master Plans developed by Major Institutions (Colleges, Universities and Hospitals). In response to these plans, which outline the specific buildings that the institution plans to build, the City creates overlays that would permit those specific buildings. Major Institutions are likely to accommodate significant employment growth and some residential growth over the planning horizon. Development capacity for these areas can only be identified through review of the master plans and their proposed development, and capacity for these areas is not reflected in this document. On the other hand, shoreline zones are applied on areas within two hundred feet of a shoreline. These areas are not expected to see significant development, and these areas have been left out of the analysis.

For those zones that are expected to see development, a series of steps are undertaken to identify potential development sites and calculate the amount of development that could occur on those sites. This process includes: identifying available land; identifying the amount of area that might be developed in commercial versus residential uses; and identifying the amount of new housing units or commercial square feet that might be built on those parcels.

Formula for Estimating Development Capacity

- Beginning with all land area in parcels [excludes rights-of-way], subtract land now used for certain purposes [e.g. churches, cemeteries, private schools, boarding houses and dormitories] and land owned by public entities [e.g., City, County, School District, Metro, Port, U.S. government], major institutions [hospitals and universities] and parcels in the shoreline area.
- Of the remaining parcels, identify "available" land
- Apply the following formula:

  (Available land area) x (expected densities) = gross capacity

  (Gross capacity) - (existing uses on redevelopable land) = net capacity

  [*in housing units or commercial/industrial sq.ft.*]

In applying the formula, the City addresses land in each zoning category separately because the City's land use regulations and development markets operate differently in different zones. The factors used in the capacity formula for each zoning category are listed below.

Development Capacity Analysis

The actual level of development activity that occurs is controlled by a variety of future economic factors that are beyond our ability to know. These factors include such things as the future demand for a particular type of development (such as for townhouses, high-amenity multifamily, or small-unit multifamily); the amount of land that is zoned for that type of development; whether the owner of any particular land is willing to sell or redevelop it; and the financial feasibility of developing the land. Other factors, such as the relative attractiveness of certain areas for living and the relative densities allowed by the existing zoning can cause some areas to be developed earlier than others.

No one can predict with certainty the total effect of all these factors on the choices made by land developers. So, to calculate the city's development capacity it was necessary to make assumptions that would enable us to approximate the number of parcels that will be available and the densities that would be achieved. The following discussion describes some of the assumptions and how they were chosen.

Indefinite Time Period Covered by the Estimates

The capacity estimates do not include a time dimension because they do not incorporate any direct measurement of demand, which would help determine when parcels would be used. Many parcels in the city today have zoning potential for more development than now exists on them, but not all of them are currently available for development — for instance a single-family house in a commercial zone, where the owner lives and has no plans to sell. However, some day that land will change hands, and the new owner may be more willing to develop the parcel to its full economic potential. Aside from the relatively small number of parcels that are "on the market" at any one time, there is no way to know when that kind of redevelopment will happen. If Seattle's growth targets were close to matching its development capacity, identifying how much of the development capacity is currently available to meet growth goals would be more critical. As this report shows, Seattle has more than enough capacity to meet its growth targets and identifying whether some of the parcels are not available on the market is not a productive exercise.

What is Available

Seattle's capacity estimates exclude a number of parcels from the calculations, based on ownership, use or zoning. All parcels owned by a public entity—federal, state, county, city, school district, port district—were excluded from the calculations. Parcels used for cemeteries, public and private schools, churches, nursing homes, boarding houses, military bases, public utilities, hospitals, libraries, law enforcement were excluded. All of the land in the city designated as historic districts was excluded from capacity calculations, as was all the land with the major institution (MIO) overlay. The jobs and housing units that these parcels may provide are over and above the capacity shown in this report.

No land was excluded to represent additional rights-of-way or other public purposes because within Seattle, the street system is nearly completely laid out, and most facilities to satisfy public purposes are already in place, to the point that no significant land now in parcels is expected to be taken for these uses. Nor was land excluded from the calculations because of critical area designations (except for parcels that are shown as creeks or streams and City-owned greenbelts) since the city's critical areas ordinance does not prohibit development on critical areas and does not necessarily reduce the amount of development below what is permitted by the underlying zoning.

What is Redevelopable

In a built city such as Seattle, where nearly every parcel already has some building or improvement on it, new buildings often come as redevelopment — expansion or replacement of existing buildings. A developer's decision whether to demolish and replace a building, that may be generating revenue for its owner, involves many considerations, such as whether the land is owned outright; how much revenue the current building brings in; how much it would cost to demolish and replace it; and how much revenue a new structure could generate. There is no way to know about these considerations for all the parcels in the city today, let alone for five or 20 years into the future. As a surrogate for such detailed knowledge, the City uses two different methods to identify redevelopable parcels depending on the type of zone:

- Existing residential density compared to potential residential density, and
- The value of buildings and other improvements on a parcel compared to its land value.

Residential density is the more straightforward measure of whether a parcel would be redeveloped. The basic assumption is that over time, property owners will attempt to maximize the value of their property, by maximizing the number of residential units that can be rented or sold on that property. However, if the number of units currently on-site is close to the total number of units that can be accommodated on the site, the cost of building additional units would offset the amount of money that can be gained by building the new units. Therefore in residential zones, a ratio of existing units to total units is used to determine if a site is likely to be redeveloped at some point in the future.

In order to look at the value of buildings compared to land value, the City has relied on data from the King County Assessor. Appraisers in the Assessor's office assign up to three monetary values to a given parcel — one for the total parcel, and for parcels where there is an improvement, separate values for the land and for the improvement. The value of land is an indication of the demand for that land in its "highest and best" use. For vacant land, different values may be assigned to different parcels for a variety of reasons, including that those parcels are inherently more desirable because of location or physical features, or because they are zoned for higher development potential. Similarly, in the case of developed parcels, a land value that is higher than the structure value often indicates that some more intense use of the land is possible. Again, we cannot know precisely at what point a particular parcel is likely to redevelop, but analysis of parcels that have been redeveloped in Seattle over the past ten years shows: 1) generally, the lower the ratio of improvement-to-land values, the more likely the parcel is to develop; 2) approximately half of the parcels that were developed had an improvement-to-land value ratio of 0.5 or lower. Seattle will continue to explore other methodologies for identifying redevelopable parcels, but has not yet identified a more appropriate methodology. The list below describes the general assumptions made by zone category.

Single Family Zones (SF 5000, SF 7200, SF 9600)

Available land: all vacant parcels plus occupied parcels with at least twice the required minimum lot area (e.g., a 10,000 square-foot lot in a SF 5,000 zone that contains one house is assumed available for a second house).

Multifamily Zones (Lowrise, Midrise and Highrise)

Available Land: all vacant parcels in all multifamily zones.

- In Lowrise Zones (LDT, L1, L2, L3, L4) parcels available for redevelopment are identified as those parcels where the ratio of existing units to allowed units is below a specified threshold.
- In Midrise and Highrise Zones parcels available for redevelopment are identified based on the ratio of the improvement's assessed value to the land's assessed value. If the ratio of a parcel's improve-

ment value to land value is 0.5 or less, a parcel is assumed to be redevelopable. (Example: a parcel where the building is assessed at $45,000 and the land is valued at $100,000 is assumed to be available for redevelopment.)

Commercial Zones (C1, C2, NC1, NC2, NC3, SCM)

Available land: all vacant parcels plus redevelopment on parcels where the ratio between the improvement's assessed value and the land's assessed value is 0.5 or less.

Downtown Zones

Available land: all vacant parcels plus redevelopment assumed on parcels where the improvement value to land value ratio is 0.5 or less.

Industrial Zones (IG1, IG2, IB, IC)

Available land: all vacant parcels. No redevelopment of currently developed parcels is assumed.

Summary of Available Land by Zoning Category

Zone Category	Vacant Parcels (acres)	Redevelopable Parcels (acres)	Total (acres)
Single Family	787.0	1,937.5	2,724.5
Multifamily	198.2	957.1	1,155.3
Commercial Zones	476.0	774.9	1,250.9
Downtown	98.5	43.3	141.8
Industrial	421.3	0	421.3
Total	1,981.0	3,712.8	5,693.8

Residential/Commercial Split in Commercial and Downtown Zones

Seattle's commercial zones are primarily intended to provide locations for commercial uses—such as retail shops, offices and restaurants. However, the Land Use Code also allows residential uses in these zones. In recent years, with the introduction of relatively low density limits in the Lowrise multifamily zones, housing developers have turned more to commercial zones for developing multifamily housing. For mixed-use structures in commercial zones, there is no density limit, and considerably more housing units can be built there than on a same-sized parcel in many of the multifamily zones. The City has reviewed previous assumptions that 50% of new development in commercial zones would be mixed-use structures, containing housing units along with commercial use. Some of those assumptions have been recently revised.

It is important to note that the split of residential and commercial space applies across a broad area, and may not be particularly relevant on a site-by-site basis. Any particular site or small area may be developed with residential, mixed-use or commercial uses, depending on the market. The following table shows the old and new assumed residential/commercial splits for each zone:

Residential/Commercial Split Assumed for Commercial and Downtown Zones

	% of Land Expected to be Developed in Residential Uses	% of Land Expected to be Developed in Commercial Uses
Neighborhood Commercial/Commercial 1		
30' - 40' Height Limit	50	50
65' and Higher Heigh Limits	30	70
Commercial 2	20	80
Neighborhood Commercial/Residential	75	25
Seattle Cascade Mixed	60	50
Seattle Cascade Mixed/Residential	70	30
Downtown Harborfront	50	50
Downtown Mixed Commercial		
65' - 85' Height Limit	50	50
125' and Higher Height Limits	20	80
Downtown/Mixed Residential/Residential	75	25
Downtown Mixed Residential/Residential	100	0
Downtown Office Core 1	0	100
Downtown Office Core 2	20	80
Downtown Retail Core	0	100
International District Mixed	50	50
International District Residential	100	0
Pioneer Square Mixed	50	50

Expected Density

Where the Land Use Code defines maximum density limits, the capacity estimates have, in the past, assumed that those maximums would be achieved on the available parcels. As part of the buildable lands process, the City has identified a number of zones where that assumption is not holding true and has reduced the densities expected. For a more detailed explanation of the analysis used and the changes that were made, please see Section III. The following table summarizes the City of Seattle's old and new density assumptions:

Zones	Residential Density Assumption (units/acre)	Non-Residential Density Assumption (FAR)
Single Family		
SF5000	8.7	-
SF7200	6.1	-
SF9600	4.5	-
Multifamily		
LDT	22	-
L1	24	-
L2	31	-
L3	44	-
L4	87	-
MR	124	-
HR	290	-
Commercial		
NCx-30, C1-30	62	1.0
C2-30	62	1.0
NCx-40, C1-40	87	1.0
C2-40	87	1.0
NCx-65, C1-65	124	2.5
C2-65	124	2.5
PN	124	1.5
SCM/R	145	2.5
SCM	218	2.5
NCx-85, C1-85	145	3.0
C2-85	145	3.0
Downtown		
DH1	-	2.0
DH2	99	3.4
DMC-65	134	4.0
DMC-85	174	6.0
DMC-125	218	7.0
DMC-160	249	7.0
DMC-240	348	7.0
DMR/C 85/65	174	4.0
DMR/C 125/65	218	4.0
DMR/C 240/65	348	5.0
DMR/R 85/65	174	1.0
DMR/R 125/65	218	2.0
DMR/R 240/65	348	2.0
DOC1	-	14.0
DOC2	545	20.0
IDM	242	3.0
IDR	242	2.0
PSM	242	7.0
Industrial		
IG1	-	1.0
IG2	-	1.0
IB	-	1.0
IC	-	1.5